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# **California Board of Registered Nursing**

## **2009-2010 Annual School Report**

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Data Summary and Historical Trend Analysis

A Presentation of Pre-Licensure Nursing Education Programs in California

### **Southern Border**

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## INTRODUCTION

Each year, the California Board of Registered Nursing (BRN) requires all pre-licensure registered nursing programs in California to complete a survey detailing statistics of their programs, students and faculty. The survey collects data from August 1 through July 31. Information gathered from these surveys is compiled into a database and used to analyze trends in nursing education.

The BRN commissioned the University of California, San Francisco (UCSF) to conduct a historical analysis of data collected from the 2000-2001 survey through the 2009-2010 survey. In this report, we present ten years of historical data from the BRN Annual School Survey. Data analyses were conducted statewide and for nine economic regions<sup>1</sup> in California, with a separate report for each region. All reports are available on the BRN website (<http://www.rn.ca.gov/>).

This report presents data from the two-county Southern Border region. Counties in the region include Imperial and San Diego. All data are presented in aggregate form and describe overall trends in the areas and over the times specified and, therefore, may not be applicable to individual nursing education programs. Additional data from the past ten years of the BRN Annual School Survey are available in an interactive database on the BRN website.

Data collected for the first time from the 2009-2010 survey are identified by the symbol (§). The reliability of these new data will be reviewed and considered for continued inclusion in future surveys.

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<sup>1</sup> The nine regions include: (1) Northern California, (2) Northern Sacramento Valley, (3) Greater Sacramento, (4) Bay Area, (5) San Joaquin Valley, (7) Central Coast, (8) Southern California I (Los Angeles and Ventura counties), (9) Southern California II (Orange, Riverside, and San Bernardino counties), and (10) Southern Border Region. Counties within each region are detailed in the corresponding regional report. The Central Sierra (Region 6) does not have any nursing education programs and was, therefore, not included in the analyses.

## DATA SUMMARY AND HISTORICAL TREND ANALYSES

This analysis presents pre-licensure program data from the 2009-2010 BRN Annual School Survey in comparison with data from previous years of the survey. Data items addressed include the number of nursing programs, enrollments, completions, retention rates, student and faculty census data, the use of clinical simulation by nursing programs, and clinical space and practice restrictions.

### Trends in Pre-Licensure Nursing Programs

#### *Number of Nursing Programs*

There are 13 nursing programs in the Southern Border Region that lead to RN licensure. Of these programs, seven are ADN programs, four are BSN programs, and two are ELM programs. The majority (61.5%) of pre-licensure nursing programs in the Southern Border Region are public.

#### Number of Nursing Programs

	<i>Academic Year</i>									
	<i>2000-2001</i>	<i>2001-2002</i>	<i>2002-2003</i>	<i>2003-2004</i>	<i>2004-2005</i>	<i>2005-2006</i>	<i>2006-2007</i>	<i>2007-2008</i>	<i>2008-2009</i>	<i>2009-2010</i>
<b>Total # Nursing Programs</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>12</b>	<b>12</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>
ADN Programs	6	6	6	6	7	7	8	8	7	7
BSN Programs	2	2	2	2	4	4	4	4	4	4
ELM Programs		1	1	1	1	1	1	1	2	2
Public Programs	6	6	6	6	7	7	8	8	8	8
Private Programs	2	3	3	3	5	5	5	5	5	5

#### *Admission Spaces and New Student Enrollments*

Admission spaces available for new student enrollments in the Southern Border region have nearly doubled in the past decade. However, the rate of enrollment growth has fluctuated over the same time period. In 2009-2010, available space grew by 6.3% (n=72). However, new student enrollments in 2009-2010 increased by 16.3% (n=208), leading programs in the region to overenroll students by the largest proportion of the decade. In 2009-2010, 1,484 new students filled just 1,212 available spaces. The most frequently reported reason for doing so was to account for attrition.<sup>‡</sup>

#### Availability and Utilization of Admission Spaces

	<i>Academic Year</i>									
	<i>2000-2001</i>	<i>2001-2002</i>	<i>2002-2003</i>	<i>2003-2004</i>	<i>2004-2005</i>	<i>2005-2006</i>	<i>2006-2007</i>	<i>2008-2009</i>	<i>2008-2009</i>	<i>2009-2010</i>
Spaces Available	641	419	679	707	1,047	1,065	1,173	1,176	1,140	1,212
New Student Enrollments	627	390	665	709	969	1,000	1,211	1,241	1,276	1,484
% Spaces Filled	97.8%	93.1%	97.9%	100.3%	92.6%	93.9%	103.2%	105.5%	111.9%	122.4%

<sup>‡</sup> Data were collected for the first time in the 2009-2010 survey.

Southern Border region nursing programs still receive more applications requesting entrance into their programs than can be accommodated. In 2009-2010, however, there was a small decline in the number of qualified applications compared with the previous year. Combined with new student enrollment growth, the share of qualified applications that were not accepted for admission (46.1%, n=1,267) was smaller by comparison with most other years over the past five years.

### Applications Accepted and Not Accepted for Admission\*

	<i>Academic Year</i>									
	<i>2000-2001</i>	<i>2001-2002</i>	<i>2002-2003</i>	<i>2003-2004</i>	<i>2004-2005</i>	<i>2005-2006</i>	<i>2006-2007</i>	<i>2007-2008</i>	<i>2008-2009</i>	<i>2009-2010</i>
<b>Qualified Applications</b>	<b>869</b>	<b>688</b>	<b>1,177</b>	<b>1,675</b>	<b>1,729</b>	<b>2,862</b>	<b>2,637</b>	<b>2,378</b>	<b>2,802</b>	<b>2,751</b>
<i>Accepted</i>	627	390	665	709	969	1,000	1,211	1,241	1,276	1,484
<i>Not Accepted</i>	242	298	512	966	760	1,862	1,426	1,137	1,526	1,267
% Qualified Applications Not Accepted	27.8%	43.3%	43.5%	57.7%	44.0%	65.1%	54.1%	47.8%	54.5%	46.1%

\*Since these data represent applications rather than individuals, an increase in qualified applications may not represent equal growth in the number of individuals applying to nursing school.

Although new student enrollments have increased at all program degree levels since 2000-2001, ADN program enrollments have generally fluctuated in number, exhibiting growth and decline from year to year over the past decade. In comparison, BSN programs have grown more steadily, and in 2009-2010 ELM program enrollments increased substantially. As a result of the increasing enrollments in BSN and ELM programs, ADN programs now enroll less than one-half (44.5%) of all new students in the region. In addition, growth in new enrollments among private programs has been much stronger in recent years compared with public programs. Private program new student enrollment grew by 46.6% (n=210) in 2009-2010 over the previous year, whereas public program new student enrollment remained stable.

### New Student Enrollment by Program Type

	<i>Academic Year</i>									
	<i>2000-2001</i>	<i>2001-2002</i>	<i>2002-2003</i>	<i>2003-2004</i>	<i>2004-2005</i>	<i>2005-2006</i>	<i>2006-2007</i>	<i>2007-2008</i>	<i>2008-2009</i>	<i>2009-2010</i>
<b>New Student Enrollment</b>	<b>627</b>	<b>390</b>	<b>665</b>	<b>709</b>	<b>969</b>	<b>1,000</b>	<b>1,211</b>	<b>1,241</b>	<b>1,276</b>	<b>1,484</b>
ADN	402	296	406	441	619	561	653	648	608	660
BSN	225	94	229	228	311	400	521	550	612	699
ELM		0	30	40	39	39	37	43	56	125
Private	172	107	162	169	364	417	451	448	451	661
Public	455	283	503	540	605	583	760	793	825	823

### Student Completions

The number of students who completed a nursing program in the Southern Border region more than doubled over the past decade, from 514 in 2000-2001 to 1,243 in 2009-2010. Of the 1,243 students that completed a nursing program in the Southern Border region in 2009-2010, 44.2% (n=549) completed an ADN program, 51.6% (n=641) completed a BSN program, and 4.3% (n=53) completed an ELM program.

### Student Completions

	Academic Year									
	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
<b>Student Completions</b>	<b>514</b>	<b>537</b>	<b>523</b>	<b>622</b>	<b>693</b>	<b>739</b>	<b>788</b>	<b>864</b>	<b>1,062</b>	<b>1,243</b>
ADN	381	378	341	415	438	493	503	576	573	549
BSN	133	159	157	178	216	207	250	288	447	641
ELM		0	25	29	39	39	35	0	42	53

### Retention Rate

Of the 951 students scheduled to complete a nursing program in the 2009-2010 academic year, 75.0% (n=713) completed the program on-time, 10.7% (n=102) are still enrolled in the program, and 14.3% (n=136) dropped out or were disqualified from the program. The retention rate has declined in each of the past five years, from 82.8% in 2005-2006 to 75.0% in 2009-2010, and may be in part due to the historically high number of students still enrolled.

### Student Cohort Completion and Retention Data

	Academic Year									
	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
<b>Students Scheduled to Complete the Program</b>	<b>1,061</b>	<b>327</b>	<b>967</b>	<b>742</b>	<b>782</b>	<b>832</b>	<b>820</b>	<b>839</b>	<b>1,064</b>	<b>951</b>
Completed On Time	849	269	537	567	620	689	649	659	812	713
Still Enrolled	86	8	344	109	78	35	64	53	96	102
Attrition	126	50	86	66	84	108	107	127	156	136
Completed Late <sup>‡</sup>										46
<b>Retention Rate*</b>	80.0%	82.3%	55.5%	76.4%	79.3%	82.8%	79.1%	78.5%	76.3%	75.0%
<b>Attrition Rate</b>	11.9%	15.3%	8.9%	8.9%	10.7%	13.0%	13.0%	15.1%	14.7%	14.3%
<b>% Still Enrolled</b>	8.1%	2.4%	35.6%	14.7%	10.0%	4.2%	7.9%	6.4%	9.0%	10.7%

\*Retention rate = (students who completed the program on-time) / (students scheduled to complete the program)

There has been fluctuation in the retention and attrition rates over the ten-year period documented in the above table. There were changes to the survey between 2003-2004 and 2004-2005, and between 2004-2005 and 2005-2006 that may have affected the comparability of these data over time.

<sup>‡</sup> Data were collected for the first time in the 2009-2010 survey. These completions are not included in the calculation of either the retention or attrition rates.

### *Student Census Data*

The total number of students enrolled in nursing programs in the Southern Border region has increased each year over the past decade. In recent years, this growth is being driven by increasing numbers of BSN and ELM students. By comparison, the total number of students enrolled in the region's ADN programs declined in both 2009 and 2010.

#### **Student Census Data\***

<b>Program Type</b>	<b>Year</b>									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
ADN Program	579	596	598	648	964	1,067	1,104	1,208	1,063	1,027
BSN Program	511	576	577	629	732	887	1,052	1,062	1,301	1,469
ELM Program		0	30	39	39	39	43	85	143	206
<b>Total Nursing Students</b>	<b>1,090</b>	<b>1,172</b>	<b>1,205</b>	<b>1,316</b>	<b>1,735</b>	<b>1,993</b>	<b>2,199</b>	<b>2,355</b>	<b>2,507</b>	<b>2,702</b>

\*Census data represent the number of students on October 15<sup>th</sup> of the given year. Blank cells indicated that the applicable information was not requested in the given year.

### *Clinical Simulation in Nursing Education*

11 of the 13 nursing schools (84.6%) in the Southern Border region reported using clinical simulation<sup>2</sup> between 8/1/09 and 7/31/10. Neither of the schools not currently using simulation reported plans to start using it either sometime this year or in the next year. All schools (100%) that use clinical simulation centers reported that they use these facilities to provide clinical experiences not available in a clinical setting and the majority of schools reported using simulation to check clinical competencies, to standardize clinical experiences and make up for clinical experiences. Data also indicate that 81.8% (n=9) of the eleven nursing schools that currently use a clinical simulation center have plans to expand it.

<b>Reasons for Using a Clinical Simulation Center*</b>	2007-2008	2008-2009	2009-2010
To standardize clinical experiences	87.5%	75.0%	72.7%
To provide clinical experience not available in a clinical setting	62.5%	66.7%	100%
To check clinical competencies	87.5%	83.3%	81.8%
To make up for clinical experiences	62.5%	66.7%	72.7%
To increase capacity in your nursing program	37.5%	16.7%	27.3%
<b>Number of schools that use a clinical simulation center</b>	<b>8</b>	<b>12</b>	<b>11</b>

\*These data were collected for the first time in 2006-2007. However, changes in these questions for the 2007-2008 administration of the survey and lack of confidence in the reliability of the 2006-2007 data prevent comparability of the data. Therefore, data from previous years of the survey are not shown.

<sup>2</sup> Clinical Simulation Center/Experience - students have a simulated real-time nursing care experience using hi-fidelity mannequins and clinical scenarios, which allow them to integrate, apply, and refine specific skills and abilities that are based on theoretical concepts and scientific knowledge. The experience includes videotaping, de-briefing and dialogue as part of the learning process.

### *Clinical Space & Clinical Practice Restrictions<sup>‡</sup>*

10 of the 13 pre-licensure nursing programs (76.9%) in the Southern Border region reported being denied access to 41 clinical placement sites in 2009-2010 that had been available during the 2008-2009 academic year, affecting a total of 300 students. Overall, the most frequently reported reasons for why programs were denied clinical space were competition for space arising from an increase in the number of nursing students in the region, and being displaced by another program. However, there are differences in reasons reported by program type. For example 66.7% of ADN programs reported a site was no longer accepting ADN students. BSN and ELM programs more frequently reported staff nurse overload as a reason.

Reasons for Clinical Space Being Unavailable	Program Type			
	ADN	BSN	ELM	Total
	%	%	%	%
Competition for Clinical Space due to Increase in Number of Nursing Students in Region	83.3%	66.7%	100%	80.0%
Displaced by Another Program	83.3%	100%	100%	90.0%
Staff Nurse Overload	33.3%	66.7%	100%	50.0%
Clinical Facility Seeking Magnet Status	50.0%	0.0%	0.0%	30.0%
Decrease in Patient Census	33.3%	66.7%	0.0%	40.0%
Nursing Residency Programs	16.7%	0.0%	0.0%	10.0%
No Longer Accepting ADN Students	66.7%	0.0%	0.0%	40.0%
Other	16.7%	0.0%	0.0%	10.0%
Number of programs	6	3	1	10

Nine of the thirteen nursing schools (69.2%) in the Southern Border region reported that pre-licensure students in their programs had encountered restrictions to clinical practice imposed on them by clinical facilities. However, the overall data indicates restricted access is not a frequent occurrence. The most common types of restricted access students faced were to the clinical site itself due to a visit from the Joint Commission or another accrediting agency. The types of practice least likely to be restricted included direct communication with health care team members, access to glucometers, or access to IV medication administration.

Type of Restricted Access	Percentage of Schools (%)					# Schools
	Very Uncommon	Uncommon	Common	Very Common	N/A	
Bar coding medication administration	33.3%	33.3%	22.2%	0.0%	11.1%	9
Electronic Medical Records	22.2%	44.4%	33.3%	0.0%	0.0%	9
Glucometers	44.4%	33.3%	11.1%	0.0%	11.1%	9
Automated medical supply cabinets	22.2%	22.2%	11.1%	0.0%	44.4%	9
IV medication administration	22.2%	66.7%	0.0%	0.0%	11.1%	9
Clinical site due to visit from accrediting agency (Joint Commission)	11.1%	22.2%	55.6%	11.1%	0.0%	9
Direct communication with health team	66.7%	33.3%	0.0%	0.0%	0.0%	9
Alternative setting due to liability	37.5%	25.0%	12.5%	0.0%	25.0%	8

<sup>‡</sup> Data were collected for the first time in the 2009-2010 survey.

### *Faculty Census Data*

The total number of nursing faculty in the Southern Border region has increased every year in the past decade, nearly tripling since 2001. On October 15, 2010, there were 482 total nursing faculty. Of these faculty, 29.7% (n=143) were full-time and 70.3% (n=339) were part-time.

Schools in the region continue to report a need for nursing faculty. On October 15, 2010, there were 11 vacant faculty positions in the Southern Border region. These vacancies represent a 2.2% faculty vacancy rate—the same as in the previous year, and equals the lowest vacancy rate on record.

### **Faculty Census Data<sup>1</sup>**

	Year									
	2001	2002	2003	2004	2005 <sup>2</sup>	2006*	2007*	2008	2009	2010
<b>Total Faculty</b>	<b>164</b>	<b>174</b>	<b>195</b>	<b>201</b>	<b>283</b>	<b>292</b>	<b>349</b>	<b>402</b>	<b>445</b>	<b>482</b>
Full-time	87	90	95	93	104	95	124	134	136	143
Part-time	77	84	100	108	150	195	225	268	309	339
<b>Vacancy Rate**</b>		<b>2.2%</b>	<b>10.6%</b>	<b>5.2%</b>	<b>5.7%</b>	<b>4.6%</b>	<b>5.7%</b>	<b>3.4%</b>	<b>2.2%</b>	<b>2.2%</b>
Vacancies		4	23	11	17	14	21	14	10	11

\* The sum of full- and part-time faculty did not equal the total faculty reported in these years.

\*\*Vacancy rate = number of vacancies/(total faculty + number of vacancies)

1 - Census data represent the number of faculty on October 15<sup>th</sup> of the given year.

2 - Faculty vacancies were estimated based on the vacant FTEs reported.

### *Summary*

Over the past decade, the number of admission spaces available in pre-licensure nursing education programs in the Southern Border region has nearly doubled as new programs have come into operation. However, available space has not grown as rapidly as new student enrollments, which have increased 137% (n=857). As a result, pre-licensure nursing programs in the region have become increasingly overenrolled. Although growth in the number of qualified applications to these programs has plateaued in recent years, programs in the region continue to receive many more qualified applications than can be accommodated.

Nursing program expansions have led to a growing number of RN graduates in the region. Between 2000-2001 and 2009-2010, graduations more than doubled (n=729) in the Southern Border region. In recent years, the number of BSN and ELM graduates has grown substantially and now fewer than one-half of all graduates complete an ADN program. However, nursing program retention rates have decreased since 2005-2006, from 82.8% in 2005-2006 to 75.0% in 2009-2010 mainly due to an increase in the number of students who remain enrolled in a program and do not complete on schedule.



Approximately 85% of the 13 schools in the Southern Border region with pre-licensure nursing programs reported using clinical simulation in 2009-2010. The importance of clinical simulation is underscored by data collected for the first time in the 2009-2010 survey, which show that 77% of programs (n=10) were denied access to clinical placement sites that were previously available to them. In addition, 70% of schools (n=9) reported that their students had faced restrictions to specific types of clinical practice or to the clinical site itself during the 2009-2010 academic year. However, the data indicate that this may not be a frequent occurrence.

Expansion in nursing education has required nursing programs to hire more faculty. Although the number of nursing faculty has nearly tripled since 2001, schools in the region continue to report a need for more faculty. In 2010, Southern Border region RN programs reported 11 faculty vacancies, representing a 2.2% faculty vacancy rate. Although this vacancy rate equals the lowest reported rate on record, RN programs in the region will not be able to maintain or expand enrollments without more faculty.

## **APPENDIX A – Southern Border Nursing Education Programs**

### **ADN Programs**

Grossmont College  
Imperial Valley College  
Kaplan College (*formerly Maric College*)  
Mira Costa College  
Palomar College  
San Diego City College  
Southwestern Community College

### **BSN Programs**

CSU San Marcos  
National University  
Point Loma Nazarene University  
San Diego State University

### **ELM Programs**

United States University (*formerly InterAmerican College*)  
University of San Diego

**APPENDIX B – BRN Education Advisory Committee Members****BRN Education Advisory Committee Members****Members**

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